

Regulations of 4 September 1987 No. 859 on protective, environmental, and safety measures on mobile offshore units

Legal basis: Laid down by the Norwegian Maritime Authority on 4 September 1987 under the Act of 9 June 1903 No. 7 relating to public control of the seaworthiness of ships etc. Legal basis amended to Act of 16 February 2007 No. 9 relating to ship safety and security (Ship Safety and Security Act) sections 9, 16, 21, 22, 28a and 45, cf. Formal Delegation of 16 February 2007 No. 171, Formal Delegation of 31 May 2007 No. 590 and Formal Delegation of 19 August 2013 No. 1002.

EEA references: EEA Agreement Annex II Chapter XIX point 1 (Directive 98/34/EC).

Amendments: Amended by Regulations of 6 July 1993 No. 744 (entry into force on 1 July 1995 according to Regulation of 9 May 1995 No. 465), 28 January 1997 No. 123, 2 March 1999 No. 413, 11 April 2003 No. 497, 29 June 2007 No. 1006 (i.a. legal basis), 14 March 2008 No. 305, 19 August 2013 No. 1036, 19 January 2016 No. 37, 5 July 2016 No. 897, 19 December 2017 No. 2322, 27 March 2023 No. 459.

Section 1

Definitions

For the purpose of these Regulations, the following definitions shall apply:

1. *Unit:* Mobile platforms, including drilling ships, equipped for drilling for subsea petroleum deposits, and mobile platforms for other use than drilling for subsea petroleum deposits.
2. *Company:* Cf. the definition given in section 4 of the Ship Safety and Security Act.
3. *Safety Management System:* All systematic efforts which the company is required to make to ensure that activities are planned, organised, performed and maintained in accordance with the requirements laid down in or pursuant to Act of 16 February 2007 No. 9 relating to ship safety and security.
4. *Recognised classification society:* Classification societies with which the Ministry has entered into an agreement pursuant to section 41 of the Ship Safety and Security Act:
 1. American Bureau of Shipping (ABS)
 2. Bureau Veritas (BV)
 3. DNV
 4. Lloyd's Register of Shipping (LR)
 5. Nippon Kaiji Kyokai (Class NK)
 6. Rina Services S.p.A (RINA).
5. *Certified:*
 - a) In respect of equipment and materials: Equipment which satisfies the requirements specified or materials complying with a recognised standard which are certified, approved or type-approved by:
 - a Notified Body,
 - an accredited certifying body,
 - a recognised classification society,
 - other public or private institution which is recognised by the Norwegian Maritime Authority, or
 - the administration of a country that has ratified the Safety of Life at Sea (SOLAS) Convention.
 - b) In respect of the execution of work: Personnel who according to regulatory requirements are required to hold special qualifications for performing specific tasks and certified by:
 - a recognised classification society,
 - an accredited certifying body, or
 - other public or private institution which is recognised by the Norwegian Maritime Authority.

Amended by Regulations of 11 April 2003 No. 497 (in force 1 July 2003), 29 June 2007 No. 1006 (in force on 1 July 2007), 14 March 2008 No. 305, 5 July 2016 No. 897, 27 March 2023 No. 459.

Section 2

Scope of application

1. These Regulations apply to mobile offshore units which are registered or will be registered in a Norwegian register of ships.
2. Mobile offshore units which are registered in a Norwegian ship register may, until the next certificate issue, comply with the requirements that applied at the time of the last certificate issue.

Amended by Regulation of 11 April 2003 No. 497 (in force 1 July 2003).

Section 3

Duties

The company, employer, offshore installation manager and others who have their work on board shall perform their duties in accordance with the Ship Safety and Security Act and the supplementary provisions laid down in these Regulations.

Amended by Regulations of 11 April 2003 No. 497 (in force 1 July 2003), 29 June 2007 No. 1006 (in force on 1 July 2007), 19 August 2013 No. 1036 (in force on 20 August 2013).

Section 4

Documentation

The company shall be able to document that the requirements of these Regulations are complied with. The contents, scope and type of documents and the time of submission shall be decided by the Norwegian Maritime Authority.

Amended by Regulation of 11 April 2003 No. 497 (in force 1 July 2003), 29 June 2007 No. 1006 (in force on 1 July 2007).

Section 5

Approval – system audit – verification

Repealed by Regulation of 11 April 2003 No. 497 (in force 1 July 2003).

Section 6

Environmental conditions in working areas

1. The unit's working areas shall be protected, and possibilities of heating shall be arranged so that all regular working assignments may be carried out by persons wearing ordinary working clothes and safety equipment.
2. The working conditions on board shall as far as possible be so arranged that persons are not unnecessarily exposed to dust and gases from chemicals, etc.

Amended by Regulations of 11 April 2003 No. 497 (in force 1 July 2003), 19 December 2017 No. 2322 (in force on 1 January 2018).

Section 6a

Prohibition on use of asbestos and other materials hazardous to health

1. Materials containing asbestos or other substances which are injurious to human health must not be used on board.
2. Materials containing asbestos or other substances injurious to health which require repairs shall be replaced by materials which are not injurious to human health.

Added by Regulation of 28 January 1997 No. 123 (in force 1 July 1997). Amended by Regulation of 11 April 2003 No. 497 (in force 1 July 2003).

Section 7

Shielding of machinery and movable equipment

1. Projecting movable parts, such as motors, wire rope drums, toothed wheels, belts, flywheels, couplings, chain and friction transmissions, shafts and other machinery gear not adequately shielded by its positioning or construction, shall be provided with adequate protective arrangements.
2. Machinery or pipes having a high surface temperature (80°C or more), and which are placed so that there is danger of someone touching them, must be encapsulated, insulated, or otherwise protected in a fully satisfactory manner.
3. All wire rope sheaves shall be equipped with a guard, where necessary.
4. Stationary grinding machines shall have fixed eye protection.
5. It shall be possible to see motors, etc. from the place at which they are started. If this is not practically possible, necessary warning signs shall be posted at the starting place. The warning signs shall say that the motor must not be started until it has been checked that this can be done without any risk.

Section 8

Precautions during special work

1. Safety permit for dangerous work.
 - 1.1. A risk analysis and classification of tasks related to planned and routine maintenance and inspections on board shall be conducted. Hot work, maintenance work carried out in dangerous areas on board and inspection of tanks, columns and pontoons are examples of work which as a minimum precaution requires a work permit.
 - 1.2. Special types of non-routine work, where the risk is significant, will in each individual case require a risk analysis/safe-job analysis in order to be able to plan safe conduct of work and identify necessary precautionary or other safety measures. The employees carrying out the work, shall participate in preparation of the analysis.
 - 1.3. Routines and procedures for issuing work permits and use of safe-job analyses shall be established. Such procedures shall describe, inter alia, the responsibilities, duties, conditions and follow-up activities relating to the work performed.
2. Welding.
 - 2.1. On board units there shall be written instructions for the use of the welding equipment. The instructions shall indicate who is responsible for the inspection of the welding equipment, who can give permission to weld and who is allowed to weld on board.
 - 2.2. Welding equipment etc. for the welding gases acetylene and oxygen shall comply with the Regulations laid down by the Norwegian Maritime Authority, in force at the time in question.
3. Use of high-pressure spraying gear, hose-down gear etc.

- 3.1. During work where dangerous dust or gases may occur, the respiratory organs, eyes, hands, etc. shall be protected.
- 3.2. Adequate ventilation shall be provided during spraying in enclosed rooms.
- 3.3. An extra person shall keep the man using the spraying pistol and hose-down gear under constant surveillance. A safety belt shall be used when working in places where there is a risk of falling down.
- 3.4. Locking of the spraying pistol trigger is forbidden, and the trigger shall be secured against inadvertent release, e.g. by means of a hoop.
- 3.5. Persons under 18 years of age must not operate high pressure sprays or hose-down gear.
- 3.6. During high pressure spraying and hose-down, static electricity will build up. Such electricity shall be removed by earthing of the spraying pistol or nozzle.
- 3.7. Instructions shall be given to the operators of high pressure spraying and hose-down gear, emphasizing i.e. the elements of risk during use of this equipment. It is the responsibility of the offshore installation manager to make the instructions known on board, by posting.
4. Work in tanks, rooms, tunnels, etc. where there may be an insufficiency of oxygen, poisonous or explosive gases.
 - 4.1. Before anyone without certified respiratory protection enters a tank or narrow, enclosed spaces, or the like, where there may be gas or an insufficiency of oxygen, it shall be ascertained that the air inside is not dangerous by performing the necessary measurements.
 - 4.2. To perform such measurements, the following instruments must be carried on board, as a minimum:
 - 2 instruments for measuring hydrocarbons (HC).
 - 2 instruments for measuring any gas concentrations injurious to health that may be present, including hydrogen sulphide (H₂S).
 - 2 instruments for measuring the oxygen content of the air.

The above instruments shall be certified and comply with the standards of CENELEC (European Committee for Electrotechnical Standardization) or IEC (International Electrotechnical Commission). Anybody performing the measurements shall have the necessary training in using the instruments.
 - 4.3. All doors, hatches, manhole covers, etc. in access openings to such spaces shall be clearly marked with signs or adhesive notices indicating the danger of gas poisoning and/or lack of oxygen to which a person may be exposed in the individual rooms. In locations where signs and notices may easily be destroyed or dirtied, the actual hatches, manhole covers, etc. shall also be painted in the same colour code as the signs. The colours of the warning signs and stickers shall be in accordance with Norwegian Standard NS 6033, and have Norwegian and English texts clearly expressing the following:

FARE
OKSYGENMANGEL
(Symbol)

DANGER
LACK OF OXYGEN

FARE
GIFTIG GASS
(Symbol)

DANGER
POISON GAS

FARE
EKSPLOSIV ATMOSFÆRE
(Symbol)

DANGER
EXPLOSIVE ATMOSPHERE

- 4.4. All units shall have on board a danger chart on which all tanks, unventilated rooms, etc. are indicated by a colour code, stating the danger of which to beware in these spaces as far as gases and/or lack of oxygen is concerned. The danger chart shall be easily legible and shall be posted on board in suitable locations.

The following colours shall be used to indicate the danger in the individual spaces:

Signal yellow	For poison gas/lack of oxygen
Signal red	For fire/explosive gases.

Spaces in which both poison gas/lack of oxygen and fire/explosive gases may occur, shall be marked with the colours stated above.
- 4.5. When work is necessary in tanks, holds, etc. where there may be a danger of poisoning or lack of oxygen, this work is permitted only on condition that an certified breathing apparatus or fresh-air apparatus is used. Prior to commencement of work in tanks, in narrow, confined spaces or the like, a thorough ventilation by means of portable fans, windmen or the like, shall be carried out. There shall be continuous ventilation as long as work is in progress.
- 4.6. Prior to inspections of, or anyone staying in or commencing work in tanks or holds in which there may be gas or insufficient oxygen, as well as when removing rust etc. from tanks or holds, the responsible superior shall be notified and the oxygen content and gas concentration in the hold/tank shall be checked.

As long as the inspection and the work is in progress, the oxygen content and gas concentration in the hold/tank shall be checked at short intervals. The work shall be supervised by at least two persons, one of whom shall be equipped with a breathing apparatus and shall be specially trained in the use of this, and the other shall be equipped with radio communication equipment certified for use in explosion-hazardous areas, in order to be able to raise the alarm as quickly as possible in the event that anything unforeseen should occur.

5. Cleaning and repair of containers which have been used for inflammable, explosive, or poisonous substances.
- 5.1. Before starting work on such containers, they shall be properly emptied, cleaned and ventilated.
- 5.2. Containers which cannot be completely cleaned shall be filled with water so that only a small area, where repairs are to be carried out, is free of water.
- 5.3. Persons who are going to open and clean containers shall wear suitable safety equipment.

Amended by Regulation of 11 April 2003 No. 497 (in force 1 July 2003), 5 July 2016 No. 897.

Section 9

Repealed by Regulation of 19 December 2017 No. 2322 (in force on 1 January 2018).

Section 10

Repealed by Regulation of 19 December 2017 No. 2322 (in force on 1 January 2018).

Section 11

Chemicals

1. All types of dangerous chemicals which are taken on board, such as e.g. trichloroethylene (TRI), caustic soda, liquid lye, hydrochloric acid, etc. shall be recorded in a special list, stating the accurate technical designation, chemical and physical properties, and also where placed on board. The necessary information regarding danger to health, measures in case of accidents, transport and storage shall be on board.
2. Chemicals shall not be mixed with other substances without knowledge of the reaction.
3. Necessary precautions shall be taken when dangerous chemicals are transported, stored or used in daily work. Containers with dangerous chemicals shall be properly marked according to the International Code of Dangerous Goods.
4. The personnel shall use suitable personal safety equipment when handling dangerous chemicals. The personnel shall receive instructions regarding the risks involved and the proper use of safety equipment during different operations. The safety equipment shall be placed in special dust and watertight lockers in areas where chemicals are often used.
5. An adequate supply of neutralizing substance shall be easily accessible for the neutralisation of spilt acid.
6. The medical warden or person having first aid training shall have a copy of the list of dangerous chemicals. He shall receive information regarding poisonous and other harmful effects, and shall be qualified to give first aid in the event of injuries/poisonings. The necessary medicines and equipment for this purpose shall be a part of the first aid equipment of board.

Amended by Regulation of 11 April 2003 No. 497 (in force 1 July 2003).

Section 11a

Handling of dangerous substances and explosives

1. The handling of dangerous substances shall be such that the risk of and during incidents is minimised. Handling means any contact or interaction with dangerous substances, such as storage, treatment, loading, unloading and use.
2. Dangerous substances shall be stored in integrated tanks intended for this purpose, or in packaging certified in accordance with the International Maritime Dangerous Goods (IMDG) Code chapter 6.
3. Packaged substances shall be placed:
 - 3.1 open decks;
 - 3.2 ventilated in accordance with SOLAS (the International Convention for the Safety of Life at Sea, 1974, consolidated edition 2015) chapter II-2 Reg. 19.3.4, with door only to the open deck; or
 - 3.3 in containers.
4. Explosives shall:
 - 4.1 be stored in their original packaging in steel crates in a separate lockable compartment or space separated from dangerous substances;
 - 4.2 be secured so as to not unintentionally explode during handling.
5. The storage place for explosives shall:
 - 5.1 have a warning sign;
 - 5.2 be in an area without sources of ignition;
 - 5.3 be so arranged that it is possible to dump the goods into the sea.
6. Before liquid cargo is back loaded to bulk on ships, the documentation on the liquid return cargo shall be given to the captain of the ship. The documentation shall include:

- 6.1 a description of an analysed sample of the return cargo:
 - 6.1.1 the amount analysed;
 - 6.1.2 information on the cargo level from which the sample has been taken;
- 6.2 a description of the components of the mixture:
 - 6.2.1 name;
 - 6.2.2 concentration;
 - 6.2.3 data sheet (if available);
- 6.3 flashpoint (°C);
- 6.4 hydrogen sulphide (H₂S) level (pp.);
- 6.5 lower explosive limit (LEL) (%);
- 6.6 oxygen level (%);
- 6.7 pH;
- 6.8 specific gravity (kg/m³);
- 6.9 water content (% by volume);
- 6.10 oil content (% by volume);
- 6.11 solids content (% by volume);
- 6.12 date and time of the analysis;
- 6.13 details on any treatment to remove or prevent a breakout of H₂S;
- 6.14 conclusions of the test results, including confirmation that the mixture components are compatible with each other.

Added by Regulation of 19 January 2016 No. 37 (in force on 1 February 2016).

Section 11b

Control of radioactive sources

The company or the operator shall designate one person to be in charge of all activities related to the radioactive sources on board. The designated person shall keep the offshore installation manager informed about the activities.

Added by Regulation of 19 January 2016 No. 37 (in force on 1 February 2016).

Section 12

Order and good housekeeping, etc.

- 1. Order.
 - 1.1. All refuse, rubbish and the like shall be kept in suitable containers.
 - 1.2. All hoses, wires, lines, etc. shall be stored in appointed places.
 - 1.3. All protective and safety equipment must be kept in an appointed place when not in use.
 - 1.4. All tools shall be kept in toolboxes, lockers, or racks when not in use.
- 2. Good housekeeping.
 - 2.1. Spilling of oil or chemicals shall be removed immediately. Sawdust or the like shall be on board for use when oil, etc. is spilt.
 - 2.2. The unit's decks shall be kept free from accumulation of water, snow and ice. It shall be possible to lead drainage overboard.
 - 2.3. For a combination of subparagraphs 2.1 and 2.2 there shall be closed drainage.
 - 2.4. One shall not stay in mess rooms, recreation rooms or cabins wearing work-clothes and boots.
- 3. Shielding.
 - Work places which are especially exposed to weather and wind shall be shielded.
- 4. Storage.
 - 4.1. All pipes, bits, spare parts, steel plates and profiles, etc. shall be stored in a suitable and proper manner and be secured to withstand a heeling corresponding to the maximum heeling angle which the unit may have at the assumed damage as defined in section 21 of the Stability Regulations.¹
 - 4.2. All gas bottles shall be stored in special containers or be secured by steel hoops.
 - 4.3. Barrels, sacks, and other packages shall be stacked in a safe manner. If necessary, suitable pallets shall be used.
 - 4.4. For decks etc. which are used for storage of cargo the maximum amount of cargo and the allowable load per sq.m. shall be given. The necessary information shall be given on posters.

Amended by Regulations of 11 April 2003 No. 497 (in force 1 July 2003), 19 December 2017 No. 2322 (in force on 1 January 2018).

¹ Cf. section 21 of the Regulations of 20 December 1991 No. 878 on stability, watertight subdivision and watertight/weathertight means of closure on mobile offshore units.

Section 13

Personal protective clothing/equipment

- 1.¹ General.
 - 1.1. The necessary protective equipment to guard the personnel against injuries and occupational diseases shall be kept on board all units.

- 1.2. All protective equipment shall be kept in good condition at all times and shall be stored in a separate locker or room on board. The room shall be of such a size – or the locker so positioned – as to allow dressing and undressing indoors.
- 1.3. The offshore installation manager shall make sure that the necessary protective equipment is on board, that this is used as prescribed and that the required protective measures are taken.
- 1.4. Personal protective equipment procured shall carry the CE mark¹. This does not apply when the mobile offshore unit is outside the European Economic Area and it is difficult to obtain equipment carrying the CE mark. In such cases, the equipment must be of a quality equivalent to that of CE-marked equipment.
2. Head protection.
 - 2.1. Head protection shall always be used outside the accommodation.
 - 2.2. If necessary, hair protection shall be used.
3. Hearing protection.
 - 3.1. Hearing protection shall be used where the sound intensity level exceeds 90 dB(A) and shall protect against immediate and delayed permanent hearing injuries. A higher level of sound intensity without the use of hearing protection may, however, be accepted if measurements show that the sound intensity at the respective frequencies is below the limit curve shown in the figure.
4. Eye protection.

During use of tools, machinery, power sprayers, caustic liquids or welding lights etc. which present a risk of injury to the eyes, protective glasses (goggles) shall be used if no other protective measures offer sufficient protection against eye injuries.
5. Respiratory protection.
 - 5.1. Dust or gas masks with filter shall always be used when there is a risk of injury to health due to inhaling air polluted by dust, smoke, gases or fumes.
 - 5.2. Respiratory apparatus which is a part of fire-fighting equipment shall not be used for other purposes.
 - 5.3. Persons with a beard should not use a face mask for breathing apparatus, smoke diving equipment or other protective masks for breathing, unless the equipment is so constructed that there is over-pressure inside the masks.
6. Hand protection.
 - 6.1. Strong gloves shall always be used when there is a risk of being injured by sharp or hot objects.
 - 6.2. Rubber or plastic gloves shall always be used when working with caustic liquids or other chemicals.
7. Safety footwear.
 - 7.1. Safety footwear shall always be worn outside the accommodation.
 - 7.2. Rubber or plastic boots shall always be worn when there is a risk of being injured by chemicals.
8. Work clothes.
 - 8.1. The fabric of ordinary work clothes shall be fire-resistant also after having been washed and shall be made of fibres which do not melt when subjected to high temperatures.
 - 8.2. When working with chemicals, work clothes which afford protection against the chemicals in question shall be worn.
 - 8.3. All work clothes shall be in such a condition that they do not hamper work or entail danger to the persons wearing them.
9. Work floating-vests and survival suits.
 - 9.1. A work floating vest or work survival suit of approved type shall be worn when working on framework or at an unguarded opening toward the sea.
 - 9.2. Work floating-vests and survival suits shall undergo regular control according to directions from the manufacturer. There shall be confirmation in writing on board that such control has been carried out.
10. Safety harness and belt.

When working aloft or in exposed places where there is a risk of falling down, either overboard or onto the deck, a safety harness or belt with appurtenant lifeline shall be used. A suitable number of safety harnesses and belt with appurtenant lines shall be on board and so placed that they are easily accessible.

Amended by Regulations of 11 April 2003 No. 497 (in force on 1 July 2003), 29 June 2007 No. 1006 (in force on 1 July 2007).

¹ section 13 No. 1.5 are entering into force 1 July 1995. Cf. Regulations in force from the Ministry of Local Government and Labour on personnel protective equipment, incorporating the EEA agreement, annex XXII paragraph 1 (Council Directive 89/ 686/EEC), chapter III on procedures for approval, section 15 subparagraph 3 (protection classes), section 18 (information from the manufacturer), section 22 (personal protective equipment exposed to ageing), section 31 (visual marking), section 35 (fall to a lower level). (Amended 9 May 1995 No. 1209.)

Section 14

Rescue line

1. As far as possible, the derrick shall be equipped with at least one rescue line or similar arrangement, installed in such a manner that the personnel can escape in an emergency.
2. The rescue line shall be kept taut and free of hindrances.
3. At least one mechanical slide with brake shall always be kept ready at the upper end of the rescue line.
4. The personnel shall receive instruction in the use of the rescue line.

5. The rescue line shall be certified non-combustible and have a safety factor of at least 10 against breaking when loaded with 150 kp in the most unfavourable way.
6. Function test of the rescue line with brake shall be carried out at least once every three months.
7. A rescue line is not required for unmanned drilling-towers.

Amended by Regulation of 11 April 2003 No. 497 (in force 1 July 2003).

Section 15

Marking, warning signs and notices

1. There shall be an easily understandable and visible marking system on board.
There shall be a distinction between the following types of marking: warning signs, prohibition signs, rescue signs, first aid signs, fire protection signs, information signs and direction signs, cf. Norwegian Standard NS 6033.
2. The signs shall be luminescent or be made visible by other means in the event that the normal lighting fails. The colours and writing of the signs shall be in accordance with NS-6033. Signs and notices shall be in English.

Amended by Regulation of 19 January 2016 No. 37 (in force on 1 February 2016).

Section 16

Deviations

The Norwegian Maritime Authority may, in individual cases and upon written application, deviate from the requirements of these Regulations. There must be special reasons that make the deviations necessary and they must be justifiable in terms of safety. If the requirements of the coastal state and the requirements of these Regulations are irreconcilable, the Norwegian Maritime Authority may deviate from the requirements insofar as safety considerations allow. Deviations must not contravene international agreements to which Norway has acceded.

Amended by Regulation of 11 April 2003 No. 497 (in force on 1 July 2003).

Section 16a

Mutual recognition

Where the Regulations require that particular fittings, materials, equipment or devices or type of equipment etc. be procured or found on a vessel, or that some specific measure be taken or the construction or design safety specific requirements, the Norwegian Maritime Authority shall permit that other appurtenances, materials, devices or types of such are installed or found on the vessel or that other measures are taken on board or that the vessel is built or designed in another way.

The Norwegian Maritime Authority shall accept this provided that it is documented by testing or other means that the appurtenances, materials, equipment or devices or types of such, or the arrangement, construction or design is at least as effective as specified by the requirements of the Regulations.

The Norwegian Maritime Authority shall accept the results of tests performed by recognised testing institutions, including testing institutions in other EEA countries. Such acceptance will be given on condition that the tests give an appropriate and satisfactory guarantee of a technical, professional, and independent nature.

Laid down 2 March 1999 No. 413 (in force on 1 September 1999).

Section 17

Entry into force

1. These Regulations enter into force on 1 November 1987.
2. As from the same date the Regulations of 13 January 1986 on arrangements on and below deck and for safety measures on Norwegian drilling units and other mobile units, are repealed.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007, previously section 18).